**Orconectes eupunctus**

**Coldwater Crayfish**

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

**Priority Score:** 50 out of 100

Population Trend: Unknown

G Rank: G2 – Imperiled species  
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands  
- Mississippi Valley Loess Plains  
- Boston Mountains  
- Mississippi Alluvial Plain  
- Arkansas Valley  
- South Central Plains  
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Reviewers**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins

Ozark Highlands - White River

Habitats

<table>
<thead>
<tr>
<th>Natural Rifflle</th>
<th>Natural Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium Optimal</td>
<td>Medium Optimal</td>
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</tbody>
</table>

Weight

<table>
<thead>
<tr>
<th>Natural Rifflle</th>
<th>Natural Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimal</td>
<td>Optimal</td>
</tr>
</tbody>
</table>

Problems Faced

Threat: Biological alteration
Source: Exotic species

Threat: Habitat disturbance
Source: Resource extraction

Threat: Sedimentation
Source: Forestry activities

Threat: Sedimentation
Source: Road construction

Data Gaps/Research Needs

Survey for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Maintain or, where necessary, restore water quality and stream habitat.</th>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medium</td>
<td>Threat Abatement</td>
</tr>
</tbody>
</table>

Monitoring Strategies

Monitor known occurrences.
Comments
Description: a rather small, stout crayfish with reddish brown thorax and abdomen (Pflieger 1996).

Endemic to the Eleven Point and Spring River drainages of Arkansas and Missouri (Williams 1954).
**Orconectes macrus**
Neosho Midget Crayfish

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

**Priority Score:** 23 out of 100

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>25 50 75 100</td>
</tr>
</tbody>
</table>

Population Trend: Unknown

G Rank: G4 – Apparently secure species  
S Rank: S2 – Imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

Taxa Association Team and Reviewers  
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Aquatic Crayfish Report

Ecobasins where the species occurs

Ecobasins

Ozark Highlands - Arkansas River

<table>
<thead>
<tr>
<th>Habitats</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Pool: Headwater - Small</td>
<td>Suitable</td>
</tr>
<tr>
<td>Natural Riffle: Headwater - Small</td>
<td>Optimal</td>
</tr>
<tr>
<td>Natural Run: Headwater - Small</td>
<td>Optimal</td>
</tr>
<tr>
<td>Natural Spring Run: Headwater</td>
<td>Suitable</td>
</tr>
</tbody>
</table>

Problems Faced

- Threat: Habitat destruction
  Source: Urban development
- Threat: Habitat disturbance
  Source: Forestry activities
- Threat: Habitat disturbance
  Source: Resource extraction
- Threat: Sedimentation
  Source: Road construction
- Threat: Sedimentation
  Source: Urban development

Data Gaps/Research Needs

- Determine species distribution in Arkansas.
- Determine taxonomic and genetic relationship to O. nana.

Conservation Actions

<table>
<thead>
<tr>
<th>Conservation Actions</th>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>More data is needed to determine conservation actions.</td>
<td>Medium</td>
<td>Data Gap</td>
</tr>
</tbody>
</table>

Orconectes macrus
Neosho Midget Crayfish
Monitoring Strategies

More information is needed before a monitoring strategy can be developed.

Comments

Description: a diminutive crayfish (maximum 2 inch total length), tan with a black or olive saddle and sometimes dark brown or black speckles (Pflieger 1996, Brian K. Wagner, personal communication).

Inhabits clear gravelly streams of the Arkansas River drainage in extreme northwest Arkansas and adjacent states (Pflieger 1996). The separation between O. macrus and O. nana is somewhat unclear and warrants further study.
*Orconectes marchandi*

Mammoth Spring Crayfish

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **46 out of 100**

Population Trend: Unknown

**G Rank:** G2 – Imperiled species  
**S Rank:** S2 – Imperiled in Arkansas

**Ecoregions where the species occurs:**
- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Reviewers**
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner

©Dr. Dan Magoullick
### Ecobasins

Ozark Highlands - White River

<table>
<thead>
<tr>
<th>Habitats</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Pool:</td>
<td>Marginal</td>
</tr>
<tr>
<td>Natural Riffle:</td>
<td>Optimal</td>
</tr>
<tr>
<td>Natural Run:</td>
<td>Suitable</td>
</tr>
</tbody>
</table>

### Problems Faced

<table>
<thead>
<tr>
<th>Threat</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological alteration</td>
<td>Exotic species</td>
</tr>
<tr>
<td>Chemical alteration</td>
<td>Recreation</td>
</tr>
<tr>
<td>Riparian Habitat Destruction</td>
<td>Channel alteration</td>
</tr>
<tr>
<td>Sedimentation</td>
<td>Recreation</td>
</tr>
</tbody>
</table>

### Data Gaps/Research Needs

Survey for additional populations.

### Conservation Actions

<table>
<thead>
<tr>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Habitat Protection</td>
</tr>
<tr>
<td>Medium</td>
<td>Habitat Restoration/Improvement</td>
</tr>
</tbody>
</table>

- Maintain or, where necessary, restore water quality and stream habitat.

### Monitoring Strategies

Monitor known occurrences.
Comments

Description: a medium-sized reddish brown crayfish (Pfieger 1996)

This crayfish has a very limited distribution in the Spring River and its tributaries in three counties of Arkansas and Missouri (Pfieger 1996). Introduced ringed crayfish may adversely affect the species (Dan Magoullick, personal communication).
**Orconectes meeki brevis**

**crayfish**

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **34 out of 100**

Population Trend: Unknown

G Rank: G4T3 – Apparently secure (vulnerable subspecies)  
S Rank: S1 – Critically imperiled in Arkansas

---

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

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**Taxa Association Team and Reviewers**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where the species occurs

Ecobasins
Ozark Highlands - Arkansas River

<table>
<thead>
<tr>
<th>Habitats</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Pool: Headwater - Small</td>
<td>Data Gap</td>
</tr>
<tr>
<td>Natural Riffle: Headwater - Small</td>
<td>Data Gap</td>
</tr>
<tr>
<td>Natural Run: Headwater - Small</td>
<td>Data Gap</td>
</tr>
</tbody>
</table>

Problems Faced

Threat: Habitat destruction
Source: Urban development

Threat: Nutrient loading
Source: Urban development

Threat: Sedimentation
Source: Road construction

Threat: Sedimentation
Source: Urban development

Data Gaps/Research Needs

Establish genetic status relative to other subspecies.
Survey for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Habitat Restoration/Improvement</td>
</tr>
</tbody>
</table>

Maintain or, where necessary, restore water quality and stream habitat.

Monitoring Strategies

Monitor known occurrences.
Comments

Description: a rather plain brown, medium-sized crayfish (Pflieger 1996).

Inhabits rocky streams in extreme northwest Arkansas and eastern Oklahoma (Hobbs 1989).

Orconectes meeki brevis
crayfish
**Orconectes menae**
crayfish

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

**Priority Score:** 27 out of 100

<table>
<thead>
<tr>
<th>Secure</th>
<th></th>
<th></th>
<th></th>
<th>Imperiled</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

Population Trend: Unknown

G Rank: G3 – Vulnerable species

S Rank: S3 – Vulnerable in Arkansas

**Ecoregions where the species occurs:**

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Agent for Aquatic Crayfish Report**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner

©Brian Wagner
Ecobasins
Ouachita Mountains - Ouachita River
Ouachita Mountains - Red River

Habitats
Natural Pool: - Small - Medium
Natural Riffle: - Small - Medium
Natural Run:  - Small - Medium

Weight
Data Gap
Data Gap
Data Gap

Problems Faced
Threat: Habitat disturbance
Source: Forestry activities

Threat: Sedimentation
Source: Road construction

Data Gaps/Research Needs
Survey for additional populations.

Conservation Actions
Maintain or, where necessary, restore water quality and stream habitat.

Importance
Category
Medium
Habitat Restoration/Improvement
Medium
Habitat Protection

Monitoring Strategies
Monitor known occurrences.
Comments

Description: a medium-sized olive to brown crayfish (Brian K. Wagner, personal communication).

Restricted to four counties in the upper Ouachitas of extreme western Arkansas and eastern Oklahoma (Hobbs 1989).
**Orconectes nana**

**crayfish**

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **30 out of 100**

Population Trend: Unknown

G Rank: G3 – Vulnerable species  
S Rank: S2 – Imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Reviewers**
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins
Boston Mountains - Arkansas River
Boston Mountains - White River
Ozark Highlands - Arkansas River
Ozark Highlands - White River

Habitats
Natural Pool: Small - Medium
Natural Riffle: Small - Medium
Natural Run: Small - Medium

Weight
Data Gap
Data Gap
Data Gap

Problems Faced
Threat: Habitat destruction
Source: Urban development

Threat: Nutrient loading
Source: Urban development

Threat: Sedimentation
Source: Road construction

Threat: Sedimentation
Source: Urban development

Data Gaps/Research Needs
Determine taxonomic and genetic relationship to O. macrus.
Survey for additional populations.

Conservation Actions
Maintain or, where necessary, restore water quality and stream habitat.

Importance
Medium

Category
Habitat Protection

Orconectes nana
crayfish
Monitoring Strategies

Monitor known occurrences.

Comments

Description: a diminutive crayfish (maximum 2 inches long), tan with a dark saddle and may have brown speckles (Chris Taylor, personal communication)

Inhabits clear gravelly streams of the Arkansas River drainage in northwest Arkansas and northeast Oklahoma (Williams 1954). The separation between O. macrus and O. nana is somewhat unclear and warrants further study.
Orconectes neglectus chaenodactylus

Ringed Crayfish

Class: Malacostraca
Order: Decapoda
Family: Cambaridae

Priority Score: 34 out of 100

Population Trend: Increasing

G Rank: G5T2 – Secure (imperiled subspecies)
S Rank: S2 – Imperiled in Arkansas

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

Element Occurrence Records

Taxa Association Team and Reviewers
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Aquatic Crayfish Report

Ecobasins where the species occurs

Ecobasins
Ozark Highlands - White River

Habitats
- Natural Pool: Headwater - Small - Medium Suitable
- Natural Riffle: Headwater - Small - Medium Suitable
- Natural Run: Headwater - Small - Medium Suitable

Problems Faced
- Threat: Habitat disturbance
  Source: Resource extraction
- Threat: Riparian Habitat Destruction
  Source: Road construction
- Threat: Sedimentation
  Source: Forestry activities
- Threat: Sedimentation
  Source: Road construction

Data Gaps/Research Needs
- Establish genetic status relative to other subspecies.
- Survey for additional populations.

Conservation Actions
- Maintain or, where necessary, restore water quality and stream habitat.

Monitoring Strategies
- Monitor known occurrences.

Orconectes neglectus chaenodactylus
Ringed Crayfish
Comments

Description: a medium to large, brown crayfish with a dark saddle, a pale band on lower side of abdomen, red-tipped claws with brown or black ring around tip (Pfieger 1996).

This subspecies is restricted to the area from the North Fork White River Basin to Sylamore Creek (Hobbs 1989). It has recently appeared in the Spring River basin (Dan Magoulick, personal communication).
**Orconectes williamsi**

William's Crayfish

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

**Priority Score:** 50 out of 100

<table>
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</thead>
<tbody>
<tr>
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<tr>
<td>50</td>
<td>75</td>
</tr>
<tr>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Population Trend: Unknown

G Rank: G2 – Imperiled species  
S Rank: S1 – Critically imperiled in Arkansas

---

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands ✔
- Mississippi Valley Loess Plains □
- Boston Mountains ✔
- Mississippi Alluvial Plain □
- Arkansas Valley □
- South Central Plains □
- Ouachita Mountains □

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**Element Occurrence Records**

---

**Taxa Association Team and Reviewers**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins

Boston Mountains - White River
Ozark Highlands - White River

Habitats

<table>
<thead>
<tr>
<th>Habitat</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Pool: Headwater - Small</td>
<td>Suitable</td>
</tr>
<tr>
<td>Natural Riffle: Headwater - Small</td>
<td>Suitable</td>
</tr>
<tr>
<td>Natural Run: Headwater - Small</td>
<td>Optimal</td>
</tr>
<tr>
<td>Natural Spring Run: Headwater - Small</td>
<td>Optimal</td>
</tr>
</tbody>
</table>

Problems Faced

Threat: Habitat destruction
Source: Urban development

Threat: Habitat disturbance
Source: Resource extraction

Threat: Habitat disturbance
Source: Road construction

Threat: Nutrient loading
Source: Urban development

Data Gaps/Research Needs

Survey for additional populations.

Conservation Actions

Maintain or, where necessary, restore water quality and stream habitat.

Importance | Category
--- | ---
Medium | Habitat Protection

Monitoring Strategies

Monitor known occurrences.
Comments

Description: a small crayfish (shorter than 2 inches long) that is gray to tan in color with a vase shaped pale zone on the carapace (Plieger 1996).

This species has localized occurrences in small headwater creeks of the upper White River basin. Status surveys are in progress in Missouri (Bob Destefano, personal communication) and Arkansas (Brian K Wagner, personal communication).
**Bouchardina robisoni**
crayfish

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **80 out of 100**

Population Trend: Unknown

G Rank: G1 – Critically imperiled species  
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

Taxa Team and reviewers
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Ecobasins
South Central Plains - Red River

Terrestrial Habitats
West Gulf Coastal Plain Seepage Swamp and Baygall

Aquatic Habitats
Natural Pool: Headwater
Natural Riffle: Headwater
Natural Seep: Headwater - Small
Natural Swamp/Wetlands: Headwater - Small

Potential Terrestrial Habitat
Map is unavailable for this species

Data Gap
Marginal Habitat
Suitable Habitat
Optimal Habitat
Obligate Habitat
Problems Faced
Threat: Habitat disturbance
Source: Road construction

Threat: Hydrological alteration
Source: Forestry activities

Threat: Toxins/contaminants
Source: Road construction

Data Gaps/Research Needs
Survey for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Threat Abatement</td>
</tr>
<tr>
<td>Medium</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>

Protect known occurrences from construction activities and herbicide applications.

Monitoring Strategies
Monitor known occurrences.

Comments

Description: a small (approximately 1/2 inch carapace length), grayish-tan crayfish with reddish-tan carapace with U-shaped rust markings on the sides (Hobbs 1977).

This species is an Arkansas endemic known from few sites. A study is currently underway to assess its status and distribution (Robison, Henry W., personal communication).
**Cambarus aculabrum**

crayfish

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **80 out of 100**

Population Trend: Stable

G Rank: G1 – Critically imperiled species  
S Rank: S1 – Critically imperiled in Arkansas

### Distribution

Ecoregions where the species occurs:

- Ozark Highlands ✔
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

### Element Occurrence Records

**Taxa Team and reviewers**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

**Ecobasins**

- Ozark Highlands - Arkansas River

**Terrestrial Habitats**

- Caves, Mines & Karst Habitat: Obligate

**Aquatic Habitats**

- Natural Cave Stream: Small - Medium: Obligate
- Natural Groundwater: Obligate
- Natural Spring Run: Headwater: Marginal
Problems Faced

Threat: Hydrological alteration
Source: Urban development

Threat: Nutrient loading
Source: Confined animal operations

Threat: Nutrient loading
Source: Urban development

Threat: Sedimentation
Source: Road construction

Threat: Toxins/contaminants
Source: Confined animal operations

Data Gaps/Research Needs

Determine life history information.

Determine taxonomic relationships.

Survey and model for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Conservation Action</th>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain groundwater quality.</td>
<td>High</td>
<td>Threat Abatement</td>
</tr>
<tr>
<td>Protect cave habitat and recharge zone from development or disturbance.</td>
<td>High</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>

Monitoring Strategies

Monitor known occurrences using protocols developed by the Fish and Wildlife Service.

Comments

Description: a small (maximum 28mm carapace length), unpigmented troglobitic crayfish with reduced eyes. (Hobbs and Brown 1987).

This crayfish is endemic to northwest Arkansas, known from very few caves, and has been listed as endangered (USFWS 1993). The species is threatened by water quality degradation, small population size, limited reproductive potential, and possible take by humans. (USFWS 1996). Recent discoveries have expanded the known distribution of this species to four sites. (Mike Slay, personal communication).
**Cambarus causeyi**
crayfish

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **80 out of 100**

Population Trend: Unknown

G Rank: G1 – Critically imperiled species  
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Team and reviewers**
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

**Ecobasins**
- Arkansas Valley - Arkansas River
- Boston Mountains - Arkansas River
- Boston Mountains - White River

**Terrestrial Habitats**
- Ozark-Ouachita Riparian: Marginal

**Aquatic Habitats**
- Natural Seep: Headwater: Obligate
- Natural Spring Run: Headwater: Suitable
Problems Faced
Threat: Groundwater depletion
Source: Excessive groundwater withdrawal

Threat: Habitat disturbance
Source: Resource extraction

Threat: Riparian Habitat Destruction
Source: Forestry activities

Data Gaps/Research Needs
Survey for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Habitat Restoration/Improvement</td>
</tr>
<tr>
<td>Medium</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>

Maintain or, where necessary, restore water quality and stream habitat.

Monitoring Strategies
Monitor known occurrences.

Comments
Description: a strongly compressed, olive-colored crayfish that is poorly known. (Robison and Allen 1995).

This Arkansas endemic crayfish inhabits complex burrows on hillsides near springs in the Boston Mountains. (Bouchard and Robison 1980). It is most closely related to three troglobitic species. (Reimer 1966). A status and distribution study of this species has been proposed for FY06. (Brian Wagner, personal communication).
**Cambarus setosus**  
Bristly Cave Crayfish

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **27 out of 100**

Population Trend: Unknown

G Rank: G4 – Apparently secure species  
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Team and reviewers**  
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Ozark Highlands - Arkansas River
Ozark Highlands - White River

Terrestrial Habitats
Caves, Mines & Karst Habitat: Obligate

Aquatic Habitats
Natural Cave Stream: Small Obligate
Natural Groundwater: Obligate
Problems Faced

Threat: Hydrological alteration
Source: Urban development

Threat: Nutrient loading
Source: Confined animal operations

Threat: Sedimentation
Source: Road construction

Threat: Toxins/contaminants
Source: Road construction

Data Gaps/Research Needs

Conduct taxonomic analyses

Determine life history characteristics

Survey and model for additional populations.

Conservation Actions

Maintain groundwater quality. | Importance: Medium | Category: Threat Abatement

Protect cave habitat and recharge zone from development or disturbance. | Importance: Medium | Category: Habitat Protection

Monitoring Strategies

Monitor known occurrences.

Comments

Description: a small (maximum 4.7 inches total length), unpigmented troglobitic crayfish with reduced eyes. (Pflieger 1996).

This crayfish is endemic to caves of the Ozarks in Missouri and Oklahoma. (Hobbs 1989). Recent unpublished discoveries have found this species in Arkansas as well. (Horton H. Hobbs III, personal communication).
**Cambarus zophonastes**

**Hell Creek Crayfish**

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

**Priority Score:** 80 out of 100

Population Trend: Stable

G Rank: G1 – Critically imperiled species  
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Team and reviewers**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Potential Terrestrial Habitat

Ecobasins

Ozark Highlands - White River

Terrestrial Habitats

Caves, Mines & Karst Habitat  
Obligate

Aquatic Habitats

Natural Cave Stream:  
- Small - Medium  
Obligate

Natural Groundwater:  
Obligate

Natural Spring Run:  
- Small - Medium  
Marginal
Problems Faced

Threat: Habitat disturbance
Source: Forestry activities

Threat: Habitat disturbance
Source: Urban development

Threat: Sedimentation
Source: Road construction

Threat: Toxins/contaminants
Source: Road construction

Data Gaps/Research Needs

Refine delineation of recharge area and identify threats therein.

Survey and model for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Activity</th>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain groundwater quality.</td>
<td>High</td>
<td>Threat Abatement</td>
</tr>
<tr>
<td>Protect cave habitat and recharge zone from development or disturbance.</td>
<td>Medium</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>

Monitoring Strategies

Monitor known occurrences using protocols determined by the US Fish and Wildlife Service.

Comments

Description: an obligate cave dweller lacking pigment, with long thin appendages and reduced eyes. (Robison and Allen 1995).

An Arkansas endemic known only from a single cave in Stone county which is owned by the Arkansas Natural Heritage Commission. Protection of the cave's recharge area is the primary focus of recovery. (USFWS 1988). While populations persist at what is likely historic levels its limited distribution makes it vulnerable to impacts. (Graening and others, in progress).
**Fallicambarus gilpini**

crayfish

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **80 out of 100**

Population Trend: Unknown

G Rank: G1 – Critically imperiled species  
S Rank: S1 – Critically imperiled in Arkansas

### Distribution

Ecoregions where the species occurs:

- **Ozark Highlands**
- **Mississippi Valley Loess Plains**
- **Boston Mountains**
- **Mississippi Alluvial Plain**
- **Arkansas Valley**
- **South Central Plains**
- **Ouachita Mountains**

### Element Occurrence Records

**Taxa Team and reviewers**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Potential Terrestrial Habitat

Ecobasins
South Central Plains - Ouachita River

Terrestrial Habitats
West Gulf Coastal Plain Seepage Swamp and Baygall  Suitable

Aquatic Habitats
Natural Groundwater:  Data Gap
Natural Seep:  - Small  Suitable
Problems Faced
Threat: Habitat disturbance
Source: Road construction

Threat: Toxins/contaminants
Source: Road construction

Data Gaps/Research Needs
Determine habitat requirements.
Survey for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Threat Abatement</td>
</tr>
</tbody>
</table>

Protect known occurrences from construction activities and herbicide applications.

Medium Habitat Protection

Monitoring Strategies
Monitor known occurrences.

Comments
Description: a burrowing crayfish often blueish in color. (Hobbs and Robison 1989).

This Arkansas endemic crayfish is restricted to a small area southwest of Pine Bluff, Arkansas. It has been documented from six sites in Jefferson County and one site in Cleveland County. (Robison and Wagner, in press). It prefers to burrow on seepage slopes away from standing water areas.
**Fallicambarus harpi**

**crayfish**

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

**Priority Score:** 80 out of 100

<table>
<thead>
<tr>
<th>Secure</th>
<th>0</th>
<th>25</th>
<th>50</th>
<th>75</th>
<th>100</th>
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<tbody>
<tr>
<td>Imperiled</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Population Trend: Unknown

G Rank: G1 – Critically imperiled species  
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Team and reviewers**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Potential Terrestrial Habitat

Ecobasins
Ouachita Mountains - Ouachita River

Terrestrial Habitats

<table>
<thead>
<tr>
<th>Habitat</th>
<th>Suitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ouachita Mountain Forested Seep</td>
<td>Optimal</td>
</tr>
<tr>
<td>Ouachita Mountain Forested Seep</td>
<td>Suitable</td>
</tr>
<tr>
<td>Pasture Land</td>
<td>Suitable</td>
</tr>
</tbody>
</table>

Aquatic Habitats

<table>
<thead>
<tr>
<th>Habitat</th>
<th>Suitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Groundwater:</td>
<td>Data Gap</td>
</tr>
<tr>
<td>Natural Seep:</td>
<td>Suitable</td>
</tr>
<tr>
<td>- Small</td>
<td></td>
</tr>
</tbody>
</table>

Fallicambarus harpi crayfish
Problems Faced

Threat: Habitat disturbance
Source: Road construction

Threat: Toxins/contaminants
Source: Road construction

Data Gaps/Research Needs
Survey for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Threat Abatement</td>
</tr>
<tr>
<td>Medium</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>

Protect known occurrences from construction activities and herbicide applications.

Monitoring Strategies
Monitor known occurrences.

Comments
Description: a burrowing crayfish, tan in color with highly variable patterning (Hobbs and Robison 1985).

This crayfish is endemic to the southern Ouachitas and is known from 12 sites in Garland, Hot Spring, Montgomery, and Pike counties (Robison and Crump 2004).
**Fallicambarus jeanae**

**crayfish**

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae  

Priority Score: **46 out of 100**

Population Trend: Unknown

G Rank: G2 – Imperiled species  
S Rank: S2 – Imperiled in Arkansas

### Distribution

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

### Element Occurrence Records

**Taxa Team and reviewers**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Ecobasins
Ouachita Mountains - Ouachita River

Terrestrial Habitats
Ouachita Mountain Forested Seep
Optimal

Aquatic Habitats
Natural Groundwater: Small
Data Gap
Natural Seep: Small
Optimal
Problems Faced
Threat: Habitat disturbance
Source: Road construction

Threat: Toxins/contaminants
Source: Road construction

Data Gaps/Research Needs
Survey for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Threat Abatement</td>
</tr>
<tr>
<td>Medium</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>

Protect known occurrences from construction activities and herbicide applications.

Monitoring Strategies
Monitor known occurrences.

Comments
Description: a burrowing crayfish varying in color from tan to grey (Hobbs 1973, Robison and Allen 1995).

This endemic crayfish inhabits burrows in sandy clay soils in Hempstead, Pike, Clark and Hot Spring counties (Robison and Allen 1995).
**Fallicambarus petilicarpus**
crayfish

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **80 out of 100**

Population Trend: Unknown

G Rank: G1 – Critically imperiled species  
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Team and reviewers**
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Potential Terrestrial Habitat

Ecobasins
South Central Plains - Ouachita River

Terrestrial Habitats
West Gulf Coastal Plain Seepage Swamp and Baygall Data Gap

Aquatic Habitats
Natural Groundwater: Data Gap
Natural Seep: Small Suitable
Problems Faced

Threat: Habitat disturbance
Source: Road construction

Threat: Toxins/contaminants
Source: Road construction

Data Gaps/Research Needs

Survey for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Threat Abatement</td>
</tr>
<tr>
<td>Medium</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>

Protect known occurrences from construction activities and herbicide applications.

Monitoring Strategies

Determine habitat requirements.

Monitor known occurrences.

Comments

Description: a burrowing crayfish, olive-brown and tan in color (Hobbs and Robison 1989).

This endemic crayfish has been documented from 5 locations in Union and Columbia counties (Robison 2001).
**Fallicambarus strawni**

**crayfish**

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **65 out of 100**

G Rank: G1G2 – Critically imperiled (uncertain rank)  
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Team and reviewers**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Potential Terrestrial Habitat

Ecobasins
- Ouachita Mountains - Ouachita River
- Ouachita Mountains - Red River
- South Central Plains - Red River

Terrestrial Habitats
- Ouachita Mountain Forested Seep: Data Gap
- Ouachita Mountain Forested Seep: Suitable

Aquatic Habitats
- Natural Groundwater: Data Gap
- Natural Seep: Headwater - Small: Suitable
Problems Faced

Threat: Habitat destruction or conversion
Source: Road construction

Threat: Habitat disturbance
Source: Road construction

Threat: Toxins/contaminants
Source: Management of/for certain species

Data Gaps/Research Needs

Survey for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Protect known occurrences from construction activities and herbicide applications.</th>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medium</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>

Monitoring Strategies

Monitor known occurrences.

Comments

Description: a pinkish cream to purplish tan crayfish that was originally described by Riemer (1966).

This endemic crayfish is known from Pike and Howard counties, where it burrows in marshy areas with sandy clay (Robison and Allen 1995).
**Faxonella blairi**

**crayfish**

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **50 out of 100**

Population Trend: Unknown

G Rank: G2 – Imperiled species  
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Team and reviewers**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Ecobasins
South Central Plains - Red River

Terrestrial Habitats
West Gulf Coastal Plain Seepage Swamp and Baygall  Data Gap

Aquatic Habitats
Natural Swamp/Wetlands:  Data Gap
Problems Faced
Threat: Habitat destruction
Source: Road construction
Threat: Habitat disturbance
Source: Forestry activities
Threat: Hydrological alteration
Source: Urban development
Threat: Toxins/contaminants
Source: Road construction

Data Gaps/Research Needs
Survey for additional populations.

Conservation Actions
<table>
<thead>
<tr>
<th>Protect known occurrences from construction activities, herbicide applications and timber harvesting.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance</td>
</tr>
<tr>
<td>Category</td>
</tr>
</tbody>
</table>

Monitoring Strategies
Monitor known occurrences.

Comments
Description: a small, wetland crayfish with maximum carapace length of 20mm (Hayes and Riemer 1977).

Occurs in southwest Arkansas and southeast Oklahoma (Hayes and Riemer 1977).
**Procambarus ferrugineus**

Crayfish

Class: Malacostraca
Order: Decapoda
Family: Cambaridae

Priority Score: **100 out of 100**

Population Trend: Decreasing

G Rank: G1 – Critically imperiled species
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Team and reviewers**

AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

**Ecobasins**
- Mississippi River Alluvial Plain - Arkansas River
- Ouachita Mountains - Arkansas River

**Terrestrial Habitats**
- Lower Mississippi Alluvial Plain Grand Prairie: Obligate

**Aquatic Habitats**
- Natural Groundwater: $\cdot$ Medium: Obligate
Procambarus ferrugineus

Problems Faced

Threat: Groundwater depletion
Source: Crop production practices

Threat: Habitat destruction
Source: Crop production practices

Threat: Habitat destruction
Source: Road construction

Threat: Toxins/contaminants
Source: Crop production practices

Data Gaps/Research Needs

Survey for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Habitat Restoration/Improvement</td>
</tr>
</tbody>
</table>

Protect known occurrences from construction activities and herbicide applications.

Medium Habitat Protection

Monitoring Strategies

Monitor known occurrences.

Comments

Described from two nearby localities in Lonoke county (Robison and Allen 1995). A study is nearing completion looking at its status and genetics (Robison and Crandall, in preparation).
**Procambarus parasimulans**
crayfish

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **23 out of 100**

Population Trend: Unknown

G Rank: G4 – Apparently secure species  
S Rank: S2 – Imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:
- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Team and reviewers**
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Ecobasins
Arkansas Valley - Arkansas River
Ouachita Mountains - Ouachita River
South Central Plains - Red River

Aquatic Habitats
Natural Groundwater: Small  Suitable
Natural Pool: Small  Data Gap
Natural Riffle: Small  Data Gap
Problems Faced

Threat: Groundwater depletion
Source: Excessive groundwater withdrawal

Threat: Habitat destruction
Source: Road construction

Threat: Toxins/contaminants
Source: Crop production practices

Data Gaps/Research Needs

Determine habitat requirements and threats
Survey for additional populations.

Conservation Actions

<table>
<thead>
<tr>
<th>Protect known occurrences from construction activities and herbicide applications</th>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medium</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>

Monitoring Strategies

Monitor known occurrences.

Comments

Description: a tan crayfish, 30 to 40mm in carapace length (Hobbs and Robison 1982).
**Procamburus regalis**

*crayfish*

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae  

Priority Score: **36 out of 100**  
Population Trend: Unknown  

G Rank: G2G3 – Imperiled (uncertain rank)  
S Rank: S2S3 – Imperiled species in Arkansas (uncertain rank)

---

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

---

**Taxa Team and reviewers**  
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Ecobasins
South Central Plains - Red River

Terrestrial Habitats
West Gulf Coastal Plain Seepage Swamp and Baygall
Suitable

Aquatic Habitats
Natural Groundwater:
Data Gap

Natural Seep: Headwater - Small
Suitable

Procamburus regalis
crayfish
Problems Faced

Threat: Chemical alteration
Source: Road construction

Threat: Habitat destruction or conversion
Source: Road construction

Data Gaps/Research Needs

Assess sensitivity to environmental stresses.

Conduct distribution surveys and life history studies.

Conservation Actions

<table>
<thead>
<tr>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>

Protect known occurrences from construction activities and herbicide applications.

Monitoring Strategies

Monitor known occurrences.

Comments

Description: a medium-sized brownish red and orange burrowing crayfish (Robison and Allen 1995).

Inhabits simple burrows in colonies that may be extremely large, in southwestern Arkansas (Hobbs and Robison 1988).
**Procambarus reimeri**

_crayfish_

**Class:** Malacostraca  
**Order:** Decapoda  
**Family:** Cambaridae

**Priority Score:** 80 out of 100

**Population Trend:** Unknown

**G Rank:** G1 – Critically imperiled species  
**S Rank:** S1 – Critically imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Team and reviewers**  
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Potential Terrestrial Habitat

<table>
<thead>
<tr>
<th>Ecobasins</th>
<th>Ouachita Mountains - Ouachita River</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrestrial Habitats</td>
<td></td>
</tr>
<tr>
<td>Ouachita Mountain Forested Seep</td>
<td>Data Gap</td>
</tr>
<tr>
<td>Ozark-Ouachita Riparian</td>
<td>Data Gap</td>
</tr>
<tr>
<td>Aquatic Habitats</td>
<td></td>
</tr>
<tr>
<td>Natural Groundwater:</td>
<td>Data Gap</td>
</tr>
<tr>
<td>Natural Seep: Headwater - Small</td>
<td>Suitable</td>
</tr>
</tbody>
</table>
Procambarus reimeri

Problems Faced

Threat: Habitat destruction or conversion
Source: Forestry activities

Threat: Habitat destruction
Source: Road construction

Threat: Toxins/contaminants
Source: Forestry activities

Data Gaps/Research Needs

Identify habitat requirements and threats.
Survey for additional populations.

<table>
<thead>
<tr>
<th>Conservation Actions</th>
<th>Importance</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect known occurrences from construction activities and herbicide applications.</td>
<td>Medium</td>
<td>Threat Abatement</td>
</tr>
<tr>
<td>Protect known occurrences from construction activities and herbicide applications.</td>
<td>Medium</td>
<td>Habitat Protection</td>
</tr>
</tbody>
</table>

Monitoring Strategies

Monitor known occurrences.

Comments

Description: a pinkish cream-colored burrowing crayfish (Robison and Allen 1995).

Known from six localities in the Ouachita River basin of Polk county (Hobbs and Robison 1988).
**Procambarus tenuis**

**crayfish**

Class: Malacostraca  
Order: Decapoda  
Family: Cambaridae

Priority Score: **31 out of 100**

Population Trend: Unknown

G Rank: G3 – Vulnerable species  
S Rank: S2 – Imperiled in Arkansas

**Distribution**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

Taxa Team and reviewers
AGFC Mr. Brian Wagner, ANHC Mr. Michael Warriner
Ecobasins where this species occurs

Ecobasins
- Ouachita Mountains - Arkansas River
- Ouachita Mountains - Ouachita River
- Ouachita Mountains - Red River

Terrestrial Habitats
- Ouachita Mountain Forested Seep: Data Gap

Potential Terrestrial Habitat

Potential Habitat Map is unavailable for this species
Aquatic Habitats

Natural Groundwater: Data Gap
Natural Pool: Data Gap
Natural Riffle: Data Gap
Natural Run: Data Gap
Natural Seep: Data Gap

Problems Faced

Threat: Habitat destruction
Source: Resource extraction

Threat: Habitat disturbance
Source: Road construction

Threat: Riparian Habitat Destruction
Source: Forestry activities

Threat: Toxins/contaminants
Source: Forestry activities

Data Gaps/Research Needs

Survey for additional populations.

Conservation Actions

Protect known occurrences from construction activities and herbicide applications.

Importance: Medium
Category: Habitat Protection

Monitoring Strategies

Monitor known occurrences.

Comments

Occurs in and adjacent to springs and clear cool streams in the Ouachitas of extreme western Arkansas and eastern Oklahoma (Hobbs 1989).